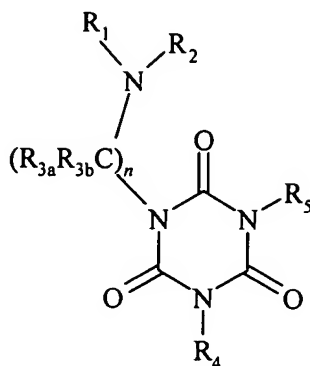


## CLAIMS

We claim:

1. A compound having the following structure:



or a stereoisomer, prodrug or pharmaceutically acceptable salt thereof,

$n$  is 2, 3 or 4;

$\text{R}_1$  and  $\text{R}_2$  are the same or different and independently hydrogen, alkyl, substituted alkyl, aryl, substituted aryl, arylalkyl, substituted arylalkyl, heterocycle, substituted heterocycle, heterocyclealkyl, substituted heterocyclealkyl,  $-\text{C}(\text{R}_8)(=\text{NR}_9)$  or  $-\text{C}(\text{NR}_{10}\text{R}_{11})(=\text{NR}_9)$ ;

or  $\text{R}_1$  and  $\text{R}_2$  taken together with the nitrogen atom to which they are attached form a heterocycle or a substituted heterocycle;

$\text{R}_{3a}$  and  $\text{R}_{3b}$  are the same or different and, at each occurrence, independently hydrogen, alkyl, substituted alkyl, alkoxy, alkylthio, alkylamino, aryl, substituted aryl, arylalkyl, substituted arylalkyl, heterocycle, substituted heterocycle, heterocyclealkyl, substituted heterocyclealkyl,  $-\text{COOR}_{12}$  or  $-\text{CONR}_{10}\text{R}_{11}$ ;

or  $\text{R}_{3a}$  and  $\text{R}_{3b}$  taken together with the carbon atom to which they are attached form a homocycle, substituted homocycle, heterocycle or substituted heterocycle;

or  $\text{R}_{3a}$  and the carbon to which it is attached taken together with  $\text{R}_1$  and the nitrogen to which it is attached form a heterocycle or substituted heterocycle;

$\text{R}_4$  is arylalkyl, substituted arylalkyl, heteroarylalkyl or substituted heteroarylalkyl;

R<sub>5</sub> is aryl, substituted aryl, heteroaryl or substituted heteroaryl;

R<sub>8</sub> is independently hydrogen, alkyl, substituted alkyl, aryl, substituted aryl, arylalkyl, substituted arylalkyl, heterocycle, substituted heterocycle, heterocyclealkyl or substituted heterocyclealkyl;

R<sub>9</sub> is independently hydrogen, alkyl, substituted alkyl, aryl, substituted aryl, arylalkyl, substituted arylalkyl, heterocycle, substituted heterocycle, heterocyclealkyl or substituted heterocyclealkyl;

R<sub>10</sub> and R<sub>11</sub> are the same or different independently hydrogen, alkyl, substituted alkyl, aryl, substituted aryl, arylalkyl, substituted arylalkyl, heterocycle, substituted heterocycle, heterocyclealkyl or substituted heterocyclealkyl; and

R<sub>12</sub> is hydrogen, alkyl, or substituted alkyl.

2. The compound of claim 1 wherein R<sub>4</sub> is substituted arylalkyl or substituted heteroarylalkyl.

3. The compound of claim 1 wherein R<sub>5</sub> is substituted aryl or substituted heteroaryl.

4. The compound of claim 1 wherein *n* is 2 or 3.

5. The compound of claim 4 wherein R<sub>4</sub> is substituted arylalkyl or substituted heteroarylalkyl.

6. A pharmaceutical composition comprising a compound of claim 1 and a pharmaceutically acceptable carrier or diluent.

7. A method for antagonizing gonadotropin-releasing hormone in a subject in need thereof, comprising administering to the subject an effective amount of a compound of claim 1.

8. A method for treating a sex-hormone related condition of a subject in need thereof, comprising administering to the subject an effective amount of the pharmaceutical composition of claim 6.

9. The method of claim 8 wherein the sex-hormone related condition is cancer, benign prostatic hypertrophy or myoma of the uterus.

10. The method of claim 9 wherein the cancer is prostatic cancer, uterine cancer, breast cancer or pituitary gonadotroph adenomas.

11. The method of claim 8 wherein the sex-hormone related condition is endometriosis, polycystic ovarian disease, uterine fibroids or precocious puberty.

12. A method for preventing pregnancy of a subject in need thereof, comprising administering an effective amount of the pharmaceutical composition of claim 6.

13. A method for treating lupus erythematosus, irritable bowel syndrome, premenstrual syndrome, hirsutism, short stature or sleep disorders of a subject in need thereof, comprising administering to the subject an effective amount of the pharmaceutical composition of claim 6.